

Mexican Jungle and Desert Fleas with Three new Descriptions

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I have before me at this time the results of two collections of fleas from Mexico. Dr. Murray Johnson, physician and surgeon, and well known west coast mammologist of Tacoma, Washington, collecting 35 miles north of Los Mochis on the border between Sinoloa and Sonora, Mexico on March 23, 1954, removed

Orchopeas s. firemani Hubbard, 4 males and 5 females off *Teanopus phenax* (woodrat), and on March 12-14, 1956 at Alamos, Sonora;

Echidnophaga gallinacea (Westwood), 4 males, 12 females off *Brassariscus astulus* (ringtail cat); off *Didelphis m. mesamericanus* (opossum), 61 males, 353 females;

Pulex simulans Baker, 10 males, 8 females off *Brassariscus austulus*; 31 males, 35 females off *Didelphis m. mesamericanus* and off *Citellus g. rupestris* (ground squirrel), 10 males, 12 females;

Ctenocephalides f. felis (Bouche), 1 male and 2 females off *Didelphis m. mesamericanus*.

It is to be noted in the above that for the first time in over 50 years the determination of *Pulex simulans* Baker has been used. Mr. Frans Smit of the British Museum, who studied the fleas involved, thinks he has found the characteristics upon which Baker made the original description in 1895. Practically all investigators to date have considered *P. simulans* a synonym of *P. irritans*. Smit is quite serious in his contention that *P. simulans* is a good species and has determined *Pulex* from central California for the writer as *P. simulans*.

The second collection before me was made by Mr. C. Hayden formerly of Riverdale, California but whose present whereabouts is unknown to the writer. During December of 1955 and January and February of 1956 Mr. Hayden was collecting about Mexico City. Six areas were visited, 14 different hosts ex-

amined, and the 24 vials of fleas collected represented 16 species and subspecies, 3 of which are considered new and described herewith as such. Upon the arrival of the materials the writer examined same without clearing and noticed the bulk of the fleas were of the genera *Kohlsia*, *Jellisonia*, *Plcochatis* and *Polygenis*. These genera being unfamiliar to the writer, the entire collection was forwarded to the British Museum for consideration. The results, now indexed, are as follows:

Pulex irritans L. off *Urocyon cinereoargenteus* (fox), 2 males, Pueblo Nuevo, Chiapas, Feb. 6, 1956.

Ctenocephalides canis (Curtis) off *Urocyon cinereoargenteus*, 3 pairs, Pueblo Nuevo, Chiapas, Feb. 6, 1956.

Ctenodaphalides f. felis (Bouche) off *Nasua narica* (koati), 4 males, 8 females, San Luis Potosi, Dec. 19, 1955; off *Sylvilagus floridanus* (cottontail), 2 females, Desierto de los Leones, Mexico City, Jan. 8, 1956.

Kohlsia cora Traub out of mouse nest, 7 males, 12 females, Pueblo Nuevo, Chiapas, Feb. 11, 1956.

Kohlsia whartoni T. and J. off *Peromyscus boylii* (deer mouse), 2 pairs, Pueblo Nuevo, Chiapas, Feb. 6, 1956; off *Neotoma mexicana* (woodrat), 1 male, Pueblo Nuevo, Chiapas, Feb. 9, 1956.

Kohlsia linni new species

There are before the writer at this time the *holotype* male, off *Peromyscus boylii* (deer mouse) (type host), Feb. 9, 1956; the *allotype* female and 2 male and 3 female *paratypes* off *Neotoma mexicana* (wood rat), Feb. 9, 1956; all taken at Pueblo Nuevo, Chiapas.

The new species differs from others of the genus in the shape and armature of the

Modified Segments: Male. Finger F, for the lack of better words to describe its shape, might be said to be bulbous or boxing glove like. The anterior border is slightly concave, and the complete apical border rounds nicely from its meeting with the anterior border to its junction with the process. On this face are three major bristles situated about equidistant along the

upper three fourths of the border. A small bristle is located at the most apical point. The finger does not quite reach the apex of the process. The process P is squarish at its apical angle, the posterior face being almost perpendicular. The bristle at the lower corner of P is giant and very long, extending well beyond those on F. Sternite IX with lower apical angle squarish, the apical face bearing 4 short stout bristles, then with upper apical rounded and thumblike, and armed with 3 short, almost spiniforms.

Female. Sternite VII with 2 lobes, the valley between larger or smaller, depending on variation, the upper lobe a small triangular protruberance, usually extending beyond the lower lobe which may be anywhere from rounded to block-like and squarish.

This flea bears the name of Dr. Otto Linn, Dean Emeritus of Faculty, Pacific Bible College, Portland, Oregon, under whom the writer has now been teaching for ten years.

Pleochaetis schmidti Traub off *Neotoma mexicana* (woodrat), 1 pair, 1956, Pueblo Nuevo, Chiapas, Feb. 9, 1956.

Pleochaetis mathesoni Traub off *Neotoma mexicana*, 1 male, Pueblo Nuevo, Chiapas, Feb. 9, 1956.

Jellisonia ironsi Eads off *Baiomys musculus* (pigmy mouse), 1 female, Comitan, near Rio Grihalva, Chiapas, Feb. 15, 1956.

Jellisonia grayi new species

There are before the writer at this time, all from El Salto, San Luis Potosi, the *holotype* male, off *Peromyscus boylii* (deer mouse) (type host), Dec. 15, 1955, the *allotype* female and 2 male and 1 female *paratypes* with same data, and 1 male *paratype* off *Peromyscus boylii*, Dec. 18, 1955; and off *Sigmodon hispidus* (cotton rat), 1 male *paratype*, Dec. 18, 1955.

The new species differs from others in the genus in the shape and armature of the

Modified Segments: Male. The finger F might be called triangular, the posterior face made undulant by the insertion of the 5 major bristles. The heel is well defined, and at this ventral apical angle there is inserted a very large bristle. Along the posterior border, about equally spaced, are 4 other promi-

ment bristles which, due to their deep insertions, make the posterior border look undulant. Process P is somewhat hook shaped, the hook facing anteriorly.

Female. Sternite VII consists of a squarish lobe below, then a deep valley, then a second lobe, pointed, triangular, and as long as the first.

This flea bears the name of Dr. Albert Gray, President Emeritus of Pacific Bible College, Portland, Oregon.

***Foxella ignota chapmani* new subspecies**

There is before the writer at this time only the *holotype* male which was taken off a cotton rat (*Sigmodon hispidus*) at El Salto, San Luis Potosi, on December 15, 1955. Although the holotype was taken off a cotton rat, it seems likely that this was accidental for *Foxella* usually have pocket gophers for their normal hosts. The new subspecies differs from others in the series mainly in the proportions of the VIIIth sternite in the male. Due to the fact that this is short in the new subspecies it seems likely that it is close to *Foxella ignota franciscana*.

Modified Segments: Male. Finger F long, slender and finger like; armed along its posterior border with the usual equally spaced 3 major bristles. Process P, the characteristic long, slender, high process, armed at the apex by a few minute bristles. VIIIth sternite characteristic, the apex with the usual long, undulant bristle and above it a wide area, squarish, the area of which is greater than any *Foxella ignota* so far described.

The female is unknown to the writer.

This flea bears the name of Dr. Milo Chapman, President of Pacific Bible College, Portland, Oregon.

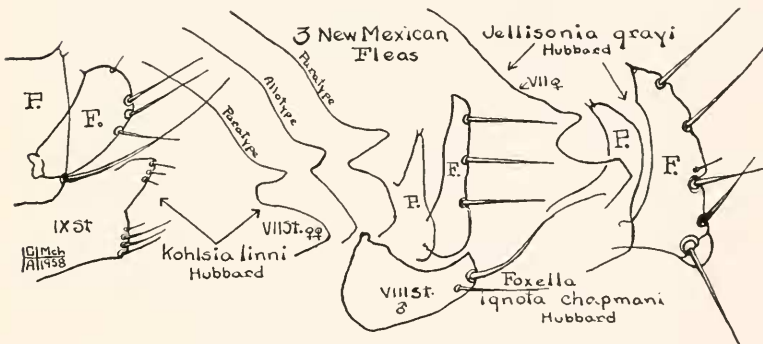
***Orchopeas howardi bolivari* Barrera** off *Urocyon cinercoar-genteus* (fox), 1 female, Pueblo Nuevo, Chiapas, Feb. 6, 1956; off *Sciurus aureogaster* (squirrel), 3 males, 1 female, Pueblo Nuevo, Chiapas, Feb. 5, 1956.

***Opisodasys robustus mexicanus* Dampf** off *Sciurus nelsoni* (squirrel), 2 males, 12 females, Desierto de los Leones, Mexico City, Jan. 1, 1956.

Polygenis vazquezi Vargas off *Peromyscus boylii* (deer mouse), 1 male, 8 miles south of Vera Cruz, Oaxaca, Jan. 23, 1956; off *Liomys pictus* (pocket mouse), 3 males, 2 females, 2 miles west of Tapanatepec, Oaxaca, Jan. 29, 1956; off *Didelphis marsupialis* (opossum), 1 pair, Comitan, near Rio Grihalva, Chiapas, Feb. 15, 1956.

Rhopalopsyllus cacijs saevus J. and R. off *Homo sapiens* (man), 1 female, Comitan, near Rio Grihalva, Chiapas, Feb. 12, 1956.

Rhopalopsyllus australis australis Rothschild off *Procyon lotor* (raccoon), 1 female, Desierto de los Leones, Mexico City, Jan. 8, 1956; off *Didelphis marsupialis* (opossum), 1 male, 2 females, Desierto de los Leones, Mexico City, Jan. 8, 1956.



Note: Since the writer no longer possesses a collection of fleas, his collection for the most part having been transferred to the Rothschild collection by gift, all materials mentioned above are returned to the Rothschild collection, and any information wished concerning them should be addressed to Mr. Frans Smit, Custodian of the Rothschild Collection of Siphonaptera, Zoological Museum, Tring, Herts., England.

The 3 new descriptions herewith bring to 60 the number of world fleas described by the writer, 50 from the continental

United States, 6 from Iraq and 4 from Mexico, and clear his desk once again of siphonapteran materials.

The writer has asked Mr. Smit to send to the United States National Museum and the Academy of Natural Sciences of Philadelphia paratypes where they are available.

Pison (Paraceramius) koreense (Rad.), A New Adventive Wasp in Eastern United States (Hymenoptera, Sphecidae)

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For several years I have puzzled over the specific identity of a short series of *Pison* (5.5–6.5 mm. long), reared by A. D. Cushman, July 19, 1954, from some fragile clay cells. He found this aggregation of cells inside a discarded photographic tank stored under an old Army barracks. This building had been transported to McLean, Virginia, from Georgia after the war. More recently J. T. Medler sent a single specimen reared in 1957 from a similar cell found at Palisades Park, Illinois. At first I supposed that the wasp was *Pison laeve* Smith, described from Georgia, but I. H. H. Yarrow at the British Museum advised me that Smith's species belongs to a different subgenus. Subsequent study of the collection in the U. S. National Museum indicated that this unknown species was more closely allied to those occurring in eastern Asia and the Orient than it was to any of the South American species. Suspecting by now that it might be *koreense* (Rad.), I borrowed a Japanese specimen of that species from K. Yasumatsu, and was able to confirm this tentative determination.

P. koreense is native to Korea, China and Japan, and is now established at two localities in the United States. Presumably it was introduced here since the war, possibly on military material returned to this country (Palisades Park is near the Ordnance Depot at Savannah, Ill.). Probably it can be expected